



Attorney Docket No. 25019A

**DECLARATION OF DAVID R. JONES, IV  
UNDER 37 CFR 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, David R. Jones, IV, hereby state as follows:

**EXPERTISE IN FIELD OF ASPHALT**

1. I received a B.S. degree in Basic Sciences from New Mexico Institute of Mining and Technology University in 1972, an M.S. degree in Chemistry from The University of Missouri in 1974, and a Ph.D. degree in Chemistry from The University of Missouri in 1976.

2. In 1984, after eight years as an Analytical Chemist, I was made supervisor of the Asphalt Technology Lab in Owens Corning, and entered the field of asphalt chemistry and product development. I supervised eight Ph.D. Chemists charged with developing asphalt products and asphalt technology. In 1987 I began working in the field of asphalt emulsions with Nobel Industries of Sweden. I was in charge of product development and chemicals supply for Nobel's emulsion business world-wide. I developed emulsion chemistries and product formulations to support Nobel's highway paving businesses. In 1989 I joined the University of Texas as part of the oversight management contract for the \$150 million Strategic Highway Research Program (SHRP), a federally-funded five-year program to revolutionize the materials and technologies used in maintenance and construction of America's Highways. During the SHRP program I was tasked with responsibility for technical

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management of the five asphalt chemistry programs within the program. In 1993 the SHRP issued a series of new specifications for the purchase and construction of bituminous pavements. These specifications have subsequently been adopted by all 50 States and several foreign countries. Following the SHRP program I joined PRI Asphalt Technologies, and for six years was the Vice President of that organization, running the paving asphalt part of the business. Since leaving PRI in 1999 I have worked for the Trumbull Division of Owens Corning as Technical Program Manager, working on asphalt product development and sourcing.

3. During this period I have served as an expert witness in the field of asphalt technology in several court venues, including State District Courts in Ohio and Colorado and Federal Courts in Florida, Ohio, and Montana. I have published twenty-nine papers, and made over one hundred and fifty presentations to technical groups and organizations. I have seven patents in the area of roofing and paving asphalt as well.

**OPINION RELATING TO HANSEN AND NELSON PATENTS**

4. I have read U.S. Patent No. 4,405,680 to Hansen and U.S. Patent No. 2,085,992 to Nelson. The Hansen patent discloses a roofing shingle including a mat saturated with a mixture of unblown asphalt and polymer, and a top coating that is a mixture of a blown asphalt and filler. The Nelson patent discloses asphalt compositions containing antioxidants for improved weatherability. My understanding is that in the Office Action mailed June 24, 2005, the Examiner argued that it would be obvious to modify the Hansen roofing shingle by adding a Nelson antioxidant to

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the top coating, in order to provide a top coating having improved weatherability. My understanding also is that the Examiner assumes, absent evidence to the contrary, that the top coating having added antioxidant would pass the ASTM D4799 weathering test.

5. The Hansen patent discloses that the asphalt used in the top coating is a blown asphalt having a softening point between 100°C and 120°C. In the example, the coating asphalt is described as a blown asphalt used commercially in the manufacture of shingles, and having a softening point of 102°C. There is no disclosure of the specific type of asphalt used in the top coating, and no suggestion that the top coating would pass the ASTM D4799 weathering test. The Nelson patent discloses the following antioxidants: naphthalene, tetralin, naphthols, naphthyl amines, phenanthrene, anthracene, dihydric phenols such as resorcinol and hydroquinone, trihydric phenols such as pyrogallol, oxyhydroquinone, phloroglucinol, aniline, gum tragacanth, rosin oil, wood tars, tannin, and alpha naphthol, used in an amount between 0.1% and 2% of the composition. In the example, the antioxidant used is 2% anthracene.

6. In my opinion, it is incorrect to state that the top coating of the Hansen patent modified by adding an antioxidant from the Nelson patent would pass the ASTM D4799 weathering test. Because of the wide diversity of molecules that comprise asphalt, it is extremely hard to find an antioxidant that works to improve the weathering of asphalt as measured by the ASTM D4799 test. Work on antioxidant use in asphalts conducted during the Strategic Highway Research Program at SRI International and Western Research Institute demonstrated that standard free-radical-

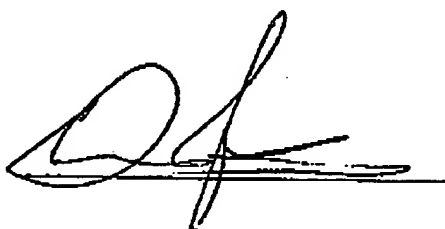
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terminator antioxidants (most of the world of antioxidants) do not work in asphalt. Specifically, with respect to the antioxidants disclosed in the Nelson patent, my opinion is that they would not significantly improve asphalt weathering as measured by the test. Passing the test would depend on the specific type of asphalt used, such as an asphalt containing primarily Alaska North Slope crude or the like, and the Hansen patent gives no specifics on the type of asphalt used. Therefore, it cannot be said that the Hansen top coating modified by adding a Nelson antioxidant would pass the ASTM D4799 weathering test.

# CERTIFICATION AND OATH

7. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the patent application or any patent issued thereon.

Date: Sept 20, 2005

By   
Dr. David R. Jones, IV